

## Abstracts

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and a moderate increase in A10BD (Biguanides and sulfonamides in combination) in 2001 (0.07) and in 2006 (1.41) in term of DID can be seen from this analysis. Financial expenditures for antidiabetics were (in 1996 (€9,772,000), in 2001 (€18,169,000) and in 2006 (€26,541,000). **CONCLUSION:** Inseparable components of the Slovak drug policy must be viewed realistically with regard to the antidiabetics' consumption. Adherence to principles of diabetes mellitus treatment's guidelines lead to fundamental short and long term financial savings within health care systems.

PDB67

**DESCRIPTIVE ANALYSIS OF BODY WEIGHT AND CLINICAL EFFECTIVENESS MEASURES ASSOCIATED WITH TYPE 2 DIABETES THERAPIES IN A PRIMARY CARE ELECTRONIC MEDICAL RECORD DATABASE**

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**OBJECTIVE:** In the treatment of type 2 diabetes (T2D), achieving glucose control often requires multiple therapies. The class of antidiabetic agents called incretin mimetics offers an alternative mechanism to diabetes management. This work describes the baseline demographic and clinical characteristics of a T2D population in a primary care setting before they initiated treatment with the incretin mimetic, exenatide. **METHODS:** Patients were extracted from the General Electric (GE) electronic medical record (EMR) database from January 1, 2000 through June 30, 2007. Patients with T2D (diagnosis, oral antidiabetic drug prescription, two consecutive fasting blood glucose levels  $\geq 126$  mg/dL, or A1C  $\geq 7.0\%$ ) were identified, as were those with at least one prescription for exenatide. Using these data, descriptive statistics were calculated for these populations. **RESULTS:** Of the 11,601 patients with a prescription for exenatide, nearly all had T2D (96%). A total of 7425 of the patients with a prescription of exenatide were  $\geq 18$  years of age and had at least 395 days of records prior to the index date. Compared to the 510,623 T2D patients on other treatments with these same age and records restrictions in the GE EMR, those patients on exenatide were significantly heavier (204.2 lbs. vs. 244.2 lbs. ( $p < 0.001$ )) with higher BMI (32.9 kg/m<sup>2</sup> vs. 38.7 kg/m<sup>2</sup> ( $p < 0.001$ )). A larger percentage of the exenatide population was obese or extremely obese than the population on other treatments (89% vs. 61% ( $p < 0.001$ )). The portion of the exenatide population with baseline A1C  $\geq 9.0$  was higher than that of the population on other treatments (56% vs. 12% ( $p < 0.001$ )) and, compared to the total, exenatide patients had significantly higher mean A1Cs (7.2% vs. 8.1% ( $p < 0.001$ )). **CONCLUSION:** These results suggest that exenatide is being added to T2D treatment regimens in obese patients with relatively high A1C levels to achieve better diabetes control.

PDB68

**AN ASSESSMENT OF THE IMPACT OF THE COVERAGE GAP UPON MEDICARE PART D BENEFICIARIES UTILIZING INSULIN**

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**OBJECTIVE:** To assess the extent of, exposure to, and medication expenditure trends associated with insulin-treated patients reaching the Medicare Part D standard beneficiary prescription coverage gap (i.e., 'doughnut hole') and catastrophic coverage.

**METHODS:** Patients receiving various insulin formulations and mixtures throughout 2006 were investigated via a prescription transaction-level retrospective database that captured 50% of all retail dispensing activity within the U.S. Analyses focused upon the coverage gap and catastrophic coverage within standard beneficiaries regarding: 1) the number of patients entering; 2) the month of entry; and 3) medication expenditures. **RESULTS:** Overall, 324,430 Medicare beneficiaries received an insulin regimen in 2006, consisting of 41% dual-eligibles ( $n = 131,611$ ), 32% low-income subsidiaries ( $n = 105,151$ ), and 27% standard beneficiaries ( $n = 87,668$ ). Across all coverage groups, oral antidiabetic agents and insulin comprised 66–72% of monthly drug expenditures. Of those potentially being exposed to a coverage gap, 46% reached the 'doughnut hole' (12% of all Part D beneficiaries) and 12% entered catastrophic coverage (3% of all Part D beneficiaries). Among the near 55,300 standard beneficiaries (63% of 87,668) enrolling in Part D by March 2006, prescription expenditures peaked in the month prior to entering the coverage gap, followed by an immediate 20–25% drop in the month thereafter. Decreased expenditures broadly corresponded to a decrease in the number of diabetes agents dispensed. **CONCLUSION:** This analysis found that 46% of all insulin-treated patients covered by the Medicare Part D standard benefit (12% of all Part D beneficiaries) were exposed to the coverage gap in 2006, characterized by a shifting of full financial responsibility to beneficiaries for outpatient medications. Entry was followed by a 20–25% decrease in expenditures and, more generally, in the number of diabetes agents received. These findings warrant continued evaluation of coverage policies and any subsequent cost-shifting or deferrals in care that may occur, particularly for chronic diseases.

PDB69

**COMPARISON OF HEALTH CARE UTILIZATION AND COSTS IN TYPE 2 DIABETES PATIENTS INITIATING ANALOG AND HUMAN INSULINS**

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**OBJECTIVE:** Use of adjunctive insulin therapy with oral antihyperglycemic agents in patients with type 2 diabetes (T2D) has been growing in the US following demonstration in the U.K. Prospective Diabetes Study that intensive therapy regimens increased glycemic control and reduced microvascular complications. The primary objective in this study was to compare the effect of analog insulin with human insulin usage on all-cause and diabetes-attributable direct health care costs and utilization in patients with type 2 diabetes. **METHODS:** Using the MarketScan Research Database, commercially insured patients were selected who initiated insulin therapy with analog or human insulins during 2001–2005, had no insulin claims 12 months prior to starting therapy, and a type 2 diabetes diagnosis during the study period. Patients were followed 12-months from insulin therapy initiation, and were stratified according to their therapy as receiving analog insulin only ( $n = 18,205$ ), human insulin only ( $n = 7035$ ), or both analog and human insulins ( $n = 5040$ ). Health care utilization and expenditures were compared between treatment groups and between pre-index and post-index periods. Generalized multi-valued propensity score weighting was used to control for observable differences in distributions of pretreatment variables among treatment groups. **RESULTS:** Although mean costs for insulin and other prescriptions were lowest for patients receiving only human insulin, mean post-index total all-cause health care costs for analog insulin patients (\$17,059)